

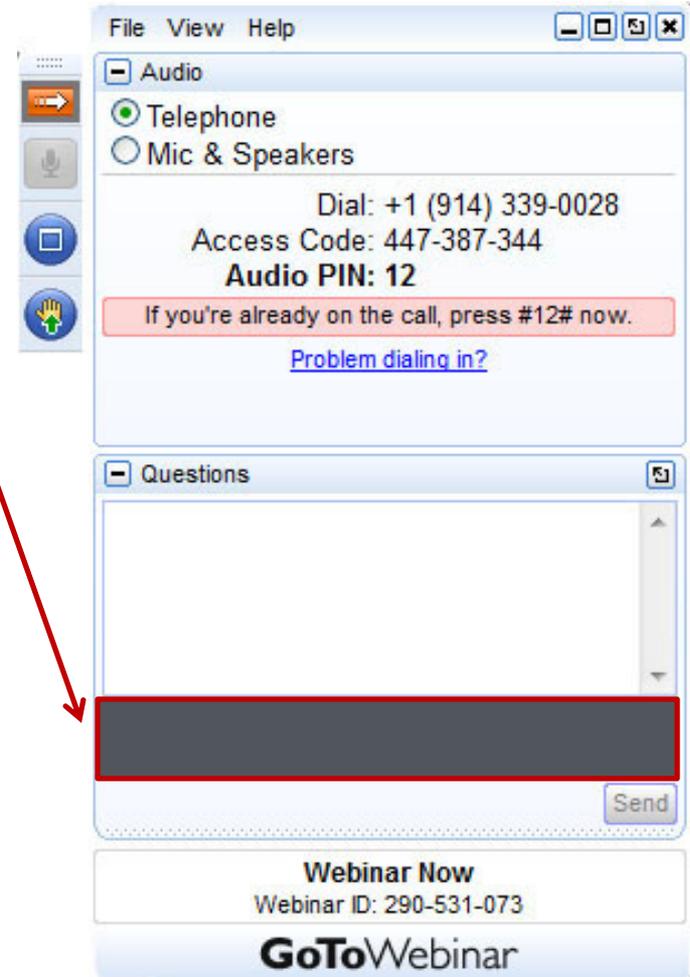


**FY 2020 CINR FOA  
DE-FOA-0002128**

**Informational Webinar  
August 6 - 8, 2019**

# How to Ask Questions During This Webinar

- ❑ Submit questions using the GoToWebinar software by typing in the Webinar ID field.
- ❑ Questions that do not get answered during the allotted time will be answered and posted on [www.NEUP.gov](http://www.NEUP.gov).
- ❑ Specific questions on individual eligibility or workscope detail should be addressed offline.



- **FY 2019 Outcomes**
- FOA Overview
- Policy Updates and Reminders
- Review Process, Tools, and Submissions

*Fiscal Year 2020 Consolidated Innovative Nuclear Research*

## FINANCIAL ASSISTANCE FUNDING OPPORTUNITY ANNOUNCEMENT



U. S. Department of Energy

Idaho Operations Office

Fiscal Year 2020 Consolidated Innovative Nuclear Research

Funding Opportunity Announcement:  
DE-FOA-0002128

Announcement Type: Initial: August 12, 2019

CFDA Number: 81.121

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Issue Date: August 12, 2019

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NOTE: Deadlines are the dates/times by which DOE must receive the specified submittal

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# FY 2019 Summary Outcome

□ In FY 2019, DOE invested nearly \$50 million in nuclear energy research, facility access, crosscutting technology development, and infrastructure awards in 25 states. In total, 58 projects were selected to receive funding that will help advance innovative nuclear technologies.

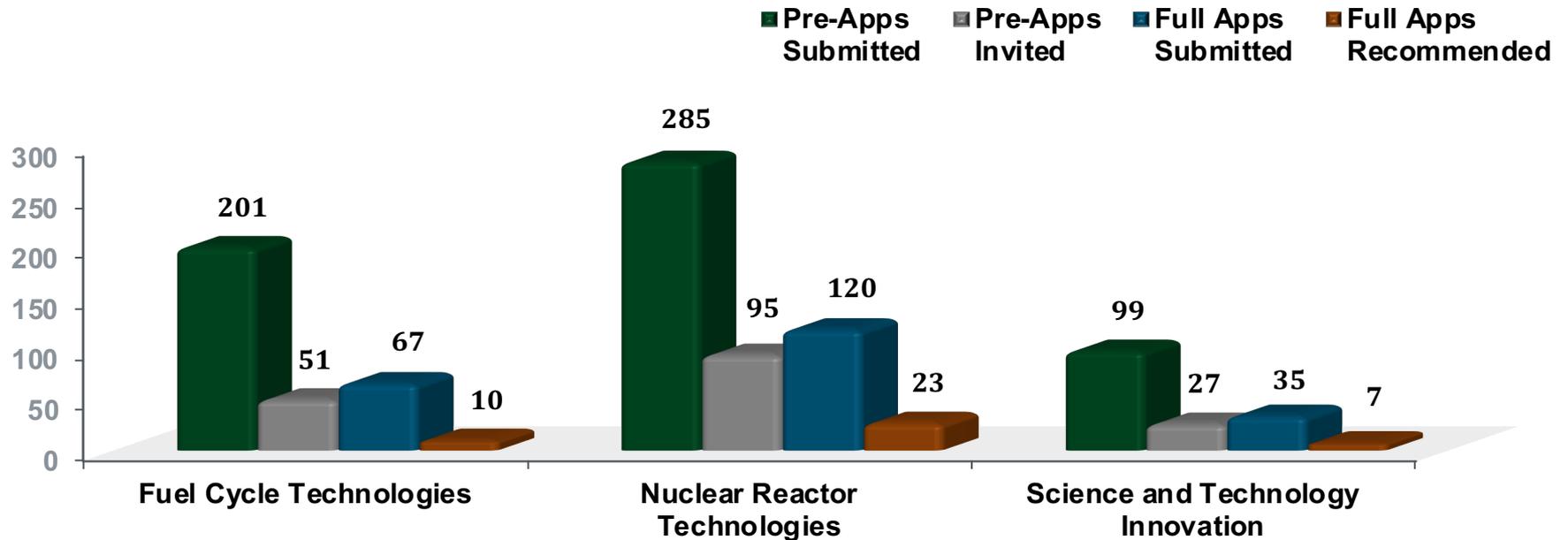


□ These awards provide funding for nuclear energy-related research through the Nuclear Energy University Program (NEUP), Nuclear Science User Facilities (NSUF), and Nuclear Energy Enabling Technology (NEET) programs. A number of nuclear technology developers will receive access to unique research capabilities and other assistance consistent with the goals and objectives of the Gateway for Accelerated Innovation in Nuclear (GAIN) initiative.

# NEUP Outcomes

- **585** pre-applications received
- **173** applications invited
- **222** full applications received
  - 4 invited were not submitted
  - **5** invited were dismissed
  - **52** uninvited submitted
    - **22** fully peer-reviewed

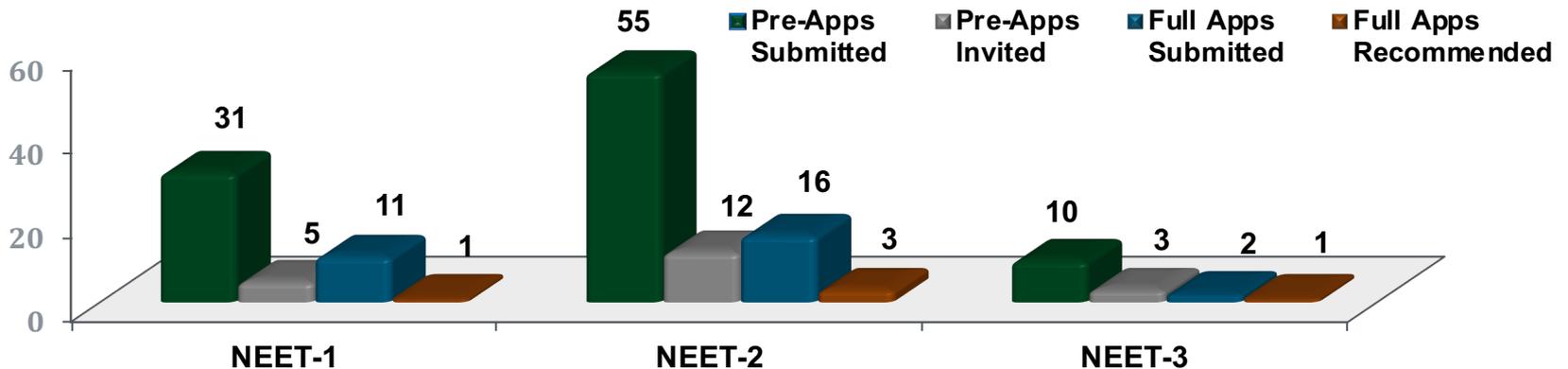
- **40** applications recommended
  - Includes 3 uninvited
  - Includes 2 NSUF awards



# NEET Outcomes

- 96 received pre-applications
- 20 invited applications
- 29 full applications received
  - 4 invited were not submitted
  - 1 invited was dismissed
  - 13 uninvited submitted
    - 3 fully peer-reviewed

- 5 recommended applications
  - No uninvited applications

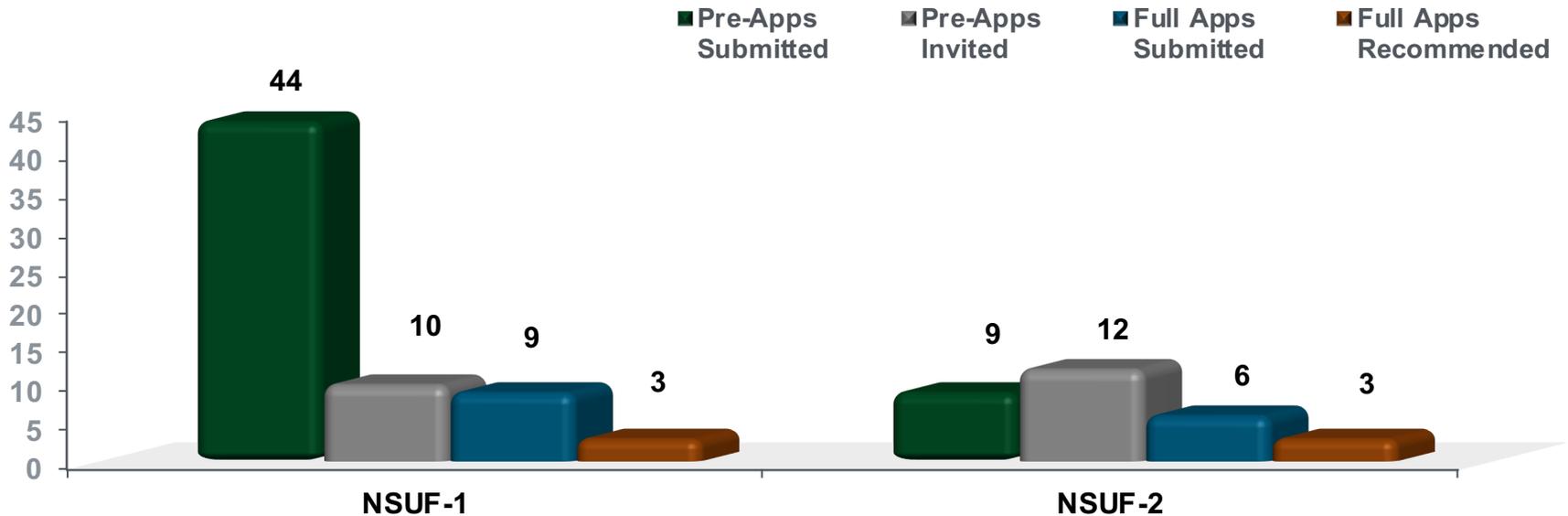


**NEET-1:** Advanced Methods for Manufacturing  
**NEET-2:** Advanced Sensor and Instrument Technology  
**NEET-3:** Digital/Electronic Nuclear Field Support Technology

# NSUF Outcomes

- 53 received pre-applications
- 22 invited applications
- 15 full applications received
  - 1 invited were not submitted

- 8 applications recommended
  - No uninvited applications
  - 2 recommendations from Fuel Cycle awards



**NSUF-1:** Nuclear Energy-Related R&D Supported By Nuclear Science User Facilities Capabilities  
**NSUF-2:** Nuclear Science User Facilities Access Only

# FY 2020 CINR FOA Objectives and Priorities

- ❑ DOE NE mission is to advance U.S. nuclear power in order to meet the nation's energy needs by:
  - 1) Enhancing the long-term viability and competitiveness of the existing U.S. reactor fleet;
  - 2) Developing an advanced reactor pipeline, and,
  - 3) Implementing and maintaining the national strategic fuel cycle and supply chain infrastructure.
  
- ❑ All applications submitted under this FOA will need to demonstrate a strong tie to at least one of these three priorities.
  
- ❑ NE conducts crosscutting nuclear energy research and development (R&D) and associated infrastructure support activities to develop innovative technologies that offer the promise of dramatically improved performance for its mission needs as stated above, while maximizing the impact of DOE resources.

# FOA Highlights

## ❑ Funding Mechanism

- Universities: Cooperative Agreements issued by DOE
- National laboratories: Work Authorizations managed by DOE
- Industry: Cooperative Agreements issued by DOE
- Nuclear Science User Facilities (NSUF) Access: NSUF User Agreement

## ❑ Collaborative Opportunity

- NSUF (requires signed user agreement)
  - applications for CINR R&D support and NSUF access
  - applications for NSUF access only

## ❑ Eligibility Requirements

- ensure R&D is delivered on time to support programmatic missions
- encourage diverse participation
- based on performance (no-cost extensions) and project load

❑ Official FOA (DE-FOA-0002128) at <http://www.grants.gov>

❑ Apply through <http://www.NEUP.gov>

# FY20 Important Due Dates

- ❑ FOA release (pending): Aug 2019
- ❑ NSUF LOI's: Sept 4, 2019
- ❑ R&D/NSUF pre-applications: Sept 24, 2019 (IRPs excluded)
- ❑ NSUF preliminary SOW: Nov 21, 2019
- ❑ Full application invitations: Dec 2019
- ❑ NSUF final SOW: Jan 23, 2020
- ❑ Full IRP applications: Feb 11, 2020
- ❑ Full R&D applications: Feb 11, 2020



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# FOA Organization

## University-led R&D (NEUP and NSUF worksopes):

- Appendix A
  - Program Supporting
  - Mission Supporting

## University-, National Laboratory-, or Industry-led R&D (NEET, NSUF worksopes):

- Appendix B
  - Program Supporting
  - Industry may only lead on NSUF worksopes

## University-led, Integrated Research Projects:

- Appendix C
  - Program Directed

# Research Elements

## ❑ Program Supporting

- supports NE programs
- defined by, and focused on, the statement of objectives developed by responsible programs



## ❑ Mission Supporting

- must support NE mission
- includes research in fields or disciplines of nuclear science and engineering that are relevant to NE's mission but may not fully align with the specific initiatives and programs as described in Program Supporting objectives



## ❑ Program Directed

- directed by NE programs
- significant projects within specific research areas
- intended to develop a capability to address specific needs, problems, or capability gaps identified and defined by DOE



# University-led R&D: Appendix A

## ❑ Award Size

- Program Supporting: up to \$800,000
- Mission Supporting: up to \$400,000

## ❑ Period of Performance

- up to three years; up to seven if irradiation and PIE are proposed in NSUF worksopes

## ❑ Eligibility

- only universities are eligible to lead
- universities, national laboratories, and industry are eligible to collaborate

## ❑ Estimated Funding Level

- approximately \$40 million, totaling approximately 40 awards

# University-, National Laboratory-, or Industry-led: Appendix B

## ❑ Award Size

- Program Supporting NEET: up to \$1,000,000
- NSUF workscopes: \$500,000 for R&D request, up to \$4 M for irradiation/PIE, \$1.5 M for irradiation, or \$750,000 for beamline or PIE access request

## ❑ Period of Performance

- Up to 3 yrs; up to 7 if irradiation and PIE are proposed in NSUF workscopes

## ❑ Eligibility

- NSUF workscopes are open to universities, national laboratories, and industry to lead or collaborate.
- Industry is ineligible lead on NEET workscopes, but may collaborate

## ❑ Estimated number of awards

- Approximately \$7 million (totaling approximately 7 NEET awards), plus approximately \$2 M for NSUF related R&D accompanied by \$10 million for NSUF Access (totaling approximately 10 awards)

# University-led IRP: Appendix C

## □ Award Size and Period of Performance

- IRP-RC-1: Infrastructure to Support Molten Salt Reactor Concepts. \$5 M, 3 years
- NEAMS IRP Areas: Thermal Hydraulics and Fuels
  - IRP-NEAMS-1.1 Thermal-Fluids Applications in Nuclear Energy. \$3 M, 3 years
  - IRP-NEAMS-1.2 Multiscale Nuclear Fuel Performance. \$3 M, 3 years

## □ Eligibility

- Only universities are eligible to lead.
- Universities, national laboratories, and industry are eligible to collaborate.
- International collaborations are encouraged.

# Lead Institution Participation Summary

## ☐ **Appendix A: U.S. Universities Only**

- applications may request R&D support
- in specific worksopes, applicants may request CINR sponsored R&D with NSUF sponsored access

## ☐ **Appendix B: U.S. Universities, National Laboratories, Industry (lead on NSUF only)**

- applications may request R&D support
- applications may request CINR sponsored R&D with NSUF sponsored access
- OR -
- applicants may request NSUF access only

## ☐ **Appendix C: U.S. Universities Only**

- applications may request R&D support

# Technical Narrative Application Page Limits

## □ Appendix A and B

- two page Letter of Intent (LOI) for applications requesting NSUF access
- up to three page pre-application
- up to 10-page full application for applications requesting R&D support
- up to 15-page full application for applications requesting R&D support and NSUF access

## □ Appendix C

- up to 50 page application for IRPs
  - IRP-RC-1: Infrastructure to Support Molten Salt Reactor Concepts
  - IRP-NEAMS-1.1 Thermal-Fluids Applications in Nuclear Energy
  - IRP-NEAMS-1.2 Multiscale Nuclear Fuel Performance

# Collaboration Guidance

- ❑ To enhance and diversify DOE's research portfolio, additional consideration is given for collaborations with minority-serving institutions (MSIs), underrepresented groups (URGs), industry, and foreign institutions.
- ❑ For university-led applications (except for worksopes under Appendix B), non-university collaborators in composite can account for no more than 20% of the total funds provided by the government.
- ❑ Applications with international collaborators should be developed such that they stand on their own, and do not require the collaboration for execution or success.
- ❑ Funding is for U.S. institutions only.
  - International organizations are encouraged to collaborate as long as they are neither a denied party nor a party requiring an export license.
  - U.S. funding will not be provided to international collaborators.

# MSI, URG, and Diverse Partnerships: Criteria and Contribution

- ❑ The degree to which MSIs, international and/or industry partners, and/or URGs, if any, contribute to the applicant's ability to support the relevant program element or overall NE mission.
  - MSI is attributed at the institution level and valued by a listing maintained by the Department of Education.
  - URG is attributed at the individual level and based on voluntary self-identification.
  - National laboratories are not considered for the purposes of diverse partnerships.
  
- ❑ Collaborations are evaluated as part of relevancy.
  
- ❑ Collaborations are not required to achieve the highest relevancy score.

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# Policy Updates and Reminders

- ❑ CINR reviews are no longer performed in a semi-blind format.
- ❑ **All CINR** applications must include a list of publications resulting from previous CINR supported projects.
- ❑ NSUF-2 applications may be led by university, national laboratory or industry applicants.
- ❑ Applicants are required to obtain a DUNS number (<http://fedgov.dnb.com/webform>), and register with the SAM website (<http://www.sam.gov/>).
- ❑ NSUF applicants are required to affirm their ability to accept the NSUF User Agreement on submission of LOI, pre-app, and full app.
- ❑ For NSUF pre-applications a separate section describing readiness is required.
- ❑ NSUF SOW's are now uploaded to NEUP.gov.

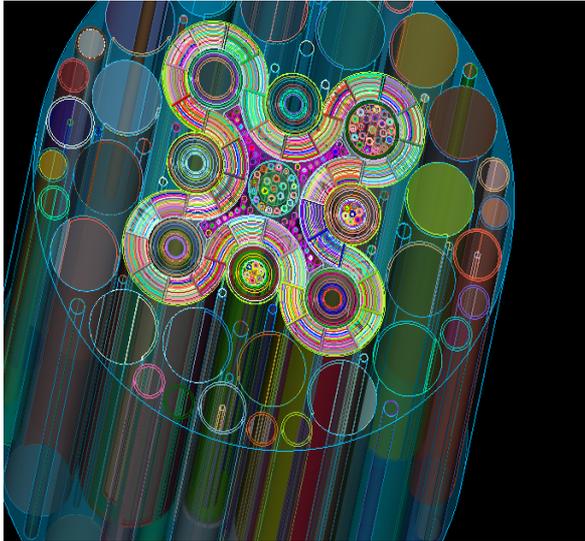
# Policy Updates and Reminders Continued

- ❑ PIs and collaborators are considered final when the pre-application is submitted (extenuating circumstances will be addressed as needed).
  
- ❑ The PI is responsible for selection of appropriate workscope.
  - Full applications must be competed in the workscope to which the pre-applications were submitted.
  - Applications may only be competed in a single workscope area.
  
- ❑ For review purposes, conflict of interest restrictions, if necessary, will be attributed to the individual, not the institution.
  
- ❑ Applicants are responsible for not exceeding submission limits.

# Policy Updates and Reminders Continued

- ❑ Materials required by the FOA must be submitted by the published deadlines. Any material received after these dates may not be considered.
- ❑ Uninvited applications may be submitted as full applications per the stipulations of the FOA.
- ❑ Uninvited applications associated with NSUF submissions may not be submitted as full applications due to the expense associated with feasibility assessments.
- ❑ U.S. funding may not be provided to international institutions.
- ❑ For university-led applications (except for workscopes under Appendix B), non-university collaborators in composite can have no more than 20% of the total funds provided by the government.

# Policy Updates and Reminders Continued



❑ **Pre-Award Costs:** Recipients may charge allowable costs to an award 90 days immediately preceding the effective award date. Recipients must obtain the prior approval of the DOE Contracting Officer for any pre-award costs greater than 90 days. Recipients are responsible for pre-award costs if award negotiations are not successful.

❑ ***DO NOT LOCK CELLS IN BUDGET SPREADSHEETS.***

Applications with locked cells may be disregarded without further review.

# Project or PI Transfer

- ❑ Applications submitted to this FOA will be awarded to the applicant institution listed and will not be transferred pre-award to another if a lead PI changes institutions. *An application is considered ‘submitted’ once the pre-application is submitted.*
- ❑ PIs that are moving from one institution to another during and/or after the CINR review process are subject to the DOE’s PI Move/Change Policy which is explained at [www.NEUP.gov](http://www.NEUP.gov).
- ❑ Awards in this FOA are made to the applying institution and will remain at that institution for the entirety of the project.
- ❑ Any additional changes to partners/collaborators must to be approved by the DOE contracting officer.

# Collaborators

## **CINR Definition of a Collaborator:**

- Individual making a defined, material contribution critical to the success of the project and/or contributing to joint publications.
- Individual appearing in the project summary, technical narrative, benefit of collaboration, coordination and management plan, or budget documents should be listed directly on the application form.
- Individuals not meeting these criteria should not be listed as collaborators on the application.
- NSUF Technical Leads are not considered collaborators unless they are receiving funding from the R&D side of the project (if you have included them on a sub-award budget or FWP, they are a collaborator)

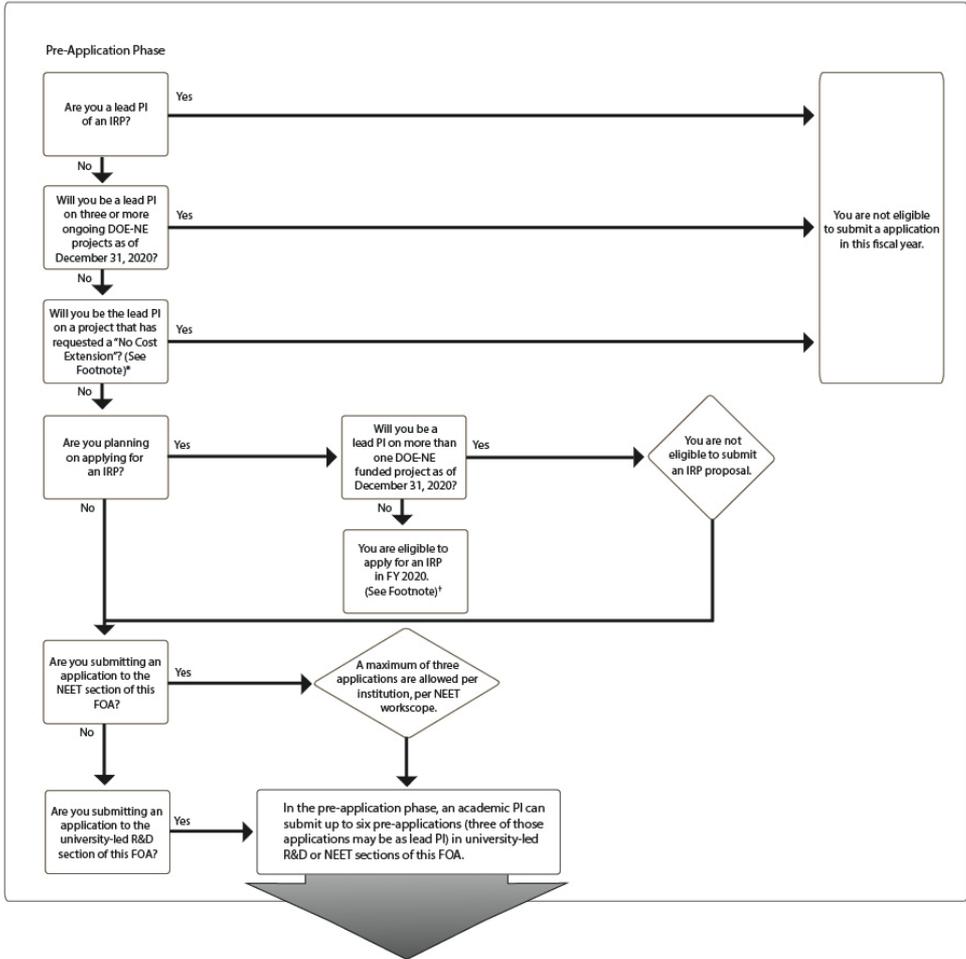
# Collaborators Continued

**PI must certify that all collaborators are listed on the application form and have agreed to participate on the project.**

- You **MUST** list all individuals involved in the project, including those at your own institution on the application form.
- If you do not list all collaborators, your application may be dismissed.
- Policy Drivers
  - Must be able to identify all individuals involved in the project for conflict of interest purposes.
  - Must verify that all individuals listed on the application are aware and agree to obligations outlined in the project proposal.

# Submittal Guidelines & Eligibility

FY 2020 Consolidated Innovative Nuclear Research FOA Eligibility Flowchart



## ❑ Ineligible to submit to this FOA as a PI:

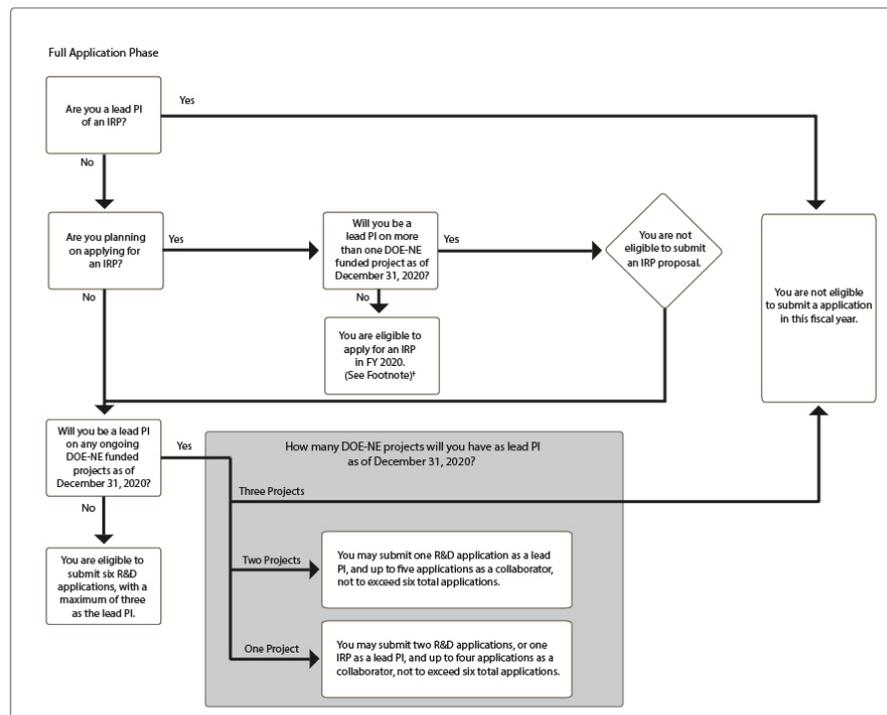
- Lead PIs on an active IRP
- University PIs with three or more R&D projects that will be active after December 31, 2020
- PIs with a No Cost Extension (NCE) on any DOE-NE funded project that will be active beyond December 31, 2020

## ❑ Pre-application submittal limits:

University PIs can be included on no more than six pre-applications total, with no more than three of those submissions as the PI.

# Submittal Guidelines & Eligibility Continued

- ❑ Full application submittal limit: A university PI may have no more than one IRP, or 3 active R&D projects at any time and may not submit more full applications than allowed should the applications be selected for funding. *NSUF access only applications are excluded, other NSUF applications are evaluated case by case.*
- ❑ Appendix B applicants are limited to 3 applications per institution per workscope area.
- ❑ Existing NCE's that will end before December 31, 2020 are not subject to this restriction. NCE requests for projects ending in FY 2020 must be submitted by April 15, 2020.



\*Existing No Cost Extensions that will end before December 31, 2020 are not subject to this restriction. All No Cost Extension requests for projects ending in FY 2020 must be submitted by April 15, 2020.  
\* PIs that submit an IRP application are not allowed to submit any R&D applications.

# Submittal Guidelines & Eligibility Continued

## ❑ **NEET-CTD funded research:**

- Universities, National Laboratories, and industry are limited to three pre-applications per institution per workscope area.
- For university PIs, these submissions count toward the pre-application limits.

## ❑ **IRP applications:**

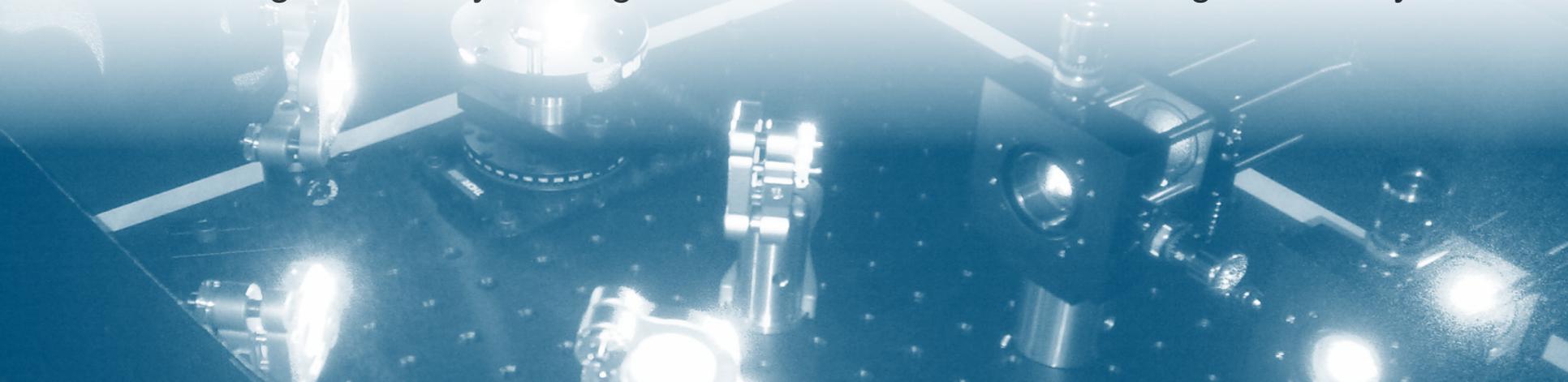
- Applicants are ineligible to submit as the PI if they are designated as PI for more than one currently funded DOE-NE research project that will still be active beyond December 31, 2020.
- PIs may not submit a R&D application and an IRP application in the same year.

## ❑ **NSUF projects that request R&D support will be evaluated on a case-by-case basis.**

## ❑ **NSUF access only applications are exempt from eligibility restrictions.**

# Uninvited Pre-Applications

- ❑ With the exception of NSUF applications, pre-applications that are not invited may still be submitted as full applications.
  
- ❑ Uninvited pre-applications that are received as full applications must meet the following criteria in a re-review to be considered for a full technical review.
  - Relevancy: average score of at least High Relevance
  - Program Priority: average score of at least Moderate Program Priority

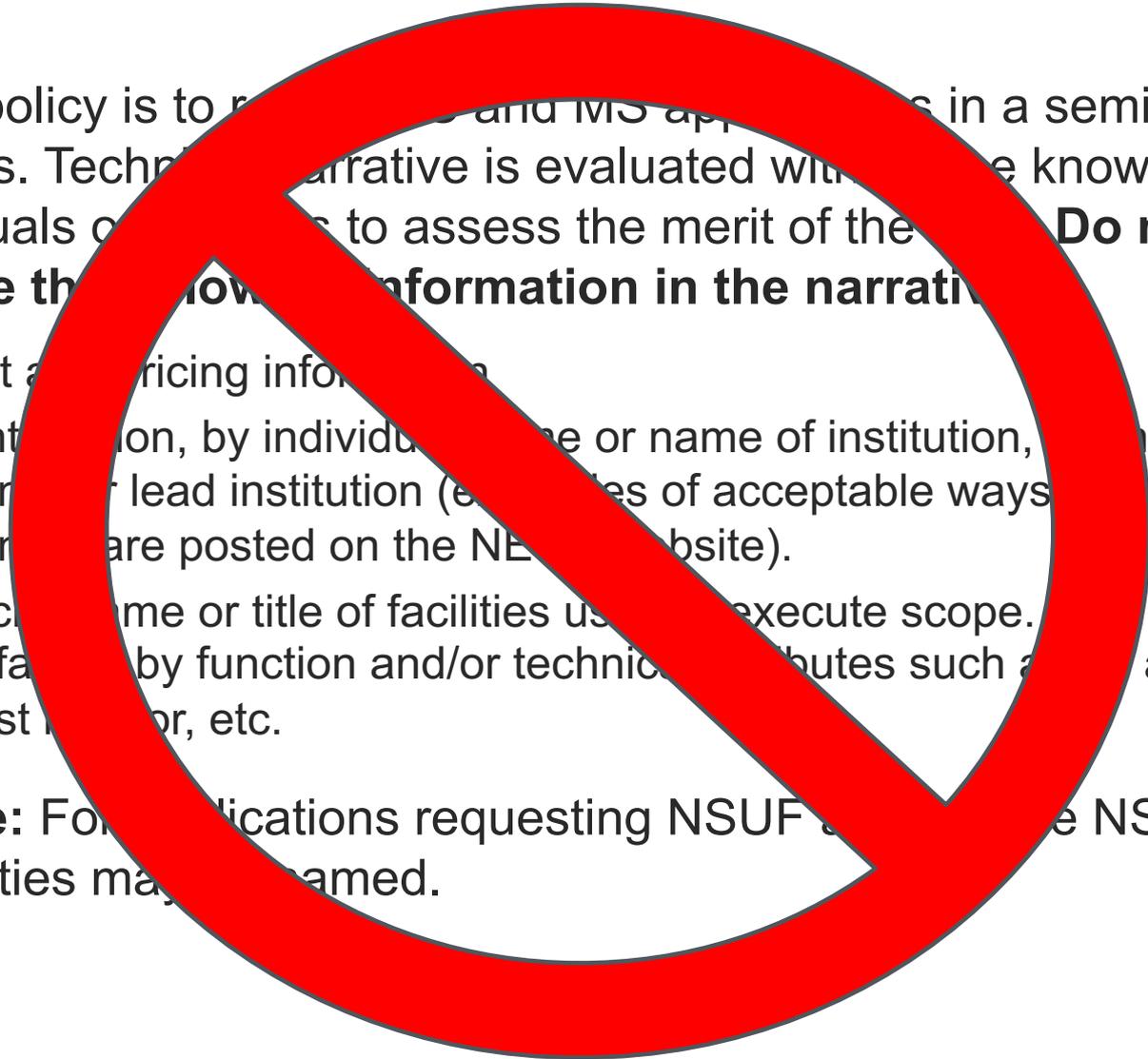


# Weighting of Scores

- ❑ Technical merit and relevancy are weighted according to program involvement:
  - Mission Supporting                      80% Technical; 20% Relevancy
  - Program Supporting                      65% Technical; 35% Relevancy
  - Program Directed                      50% Technical; 50% Relevancy
  - NSUF Access Only:                      65% Technical; 35% Relevancy
  
- ❑ The FOA details criteria for all sections and application types.
  
- ❑ Additional relevancy consideration is given for effective partnerships including MSI, URG, industry, and foreign collaborations.
  
- ❑ Program priority is a separate criteria that is scored by relevancy reviewers.

# Semi Blind Reviews

- ❑ CINR policy is to review proposals and MS applications in a semi blind process. Technical narrative is evaluated without the knowledge of individuals on the review panel to assess the merit of the proposal. **Do not include the following information in the narrative:**
  - Cost and pricing information.
  - Identification, by individual name or name of institution, of any teaming partner or lead institution (examples of acceptable ways of referring to partners are posted on the NE website).
  - Official name or title of facilities used to execute scope. Do not describe the facility by function and/or technical attributes such as "accelerator, a test reactor, etc."
- ❑ **Note:** For applications requesting NSUF use, the NSUF facilities may be named.

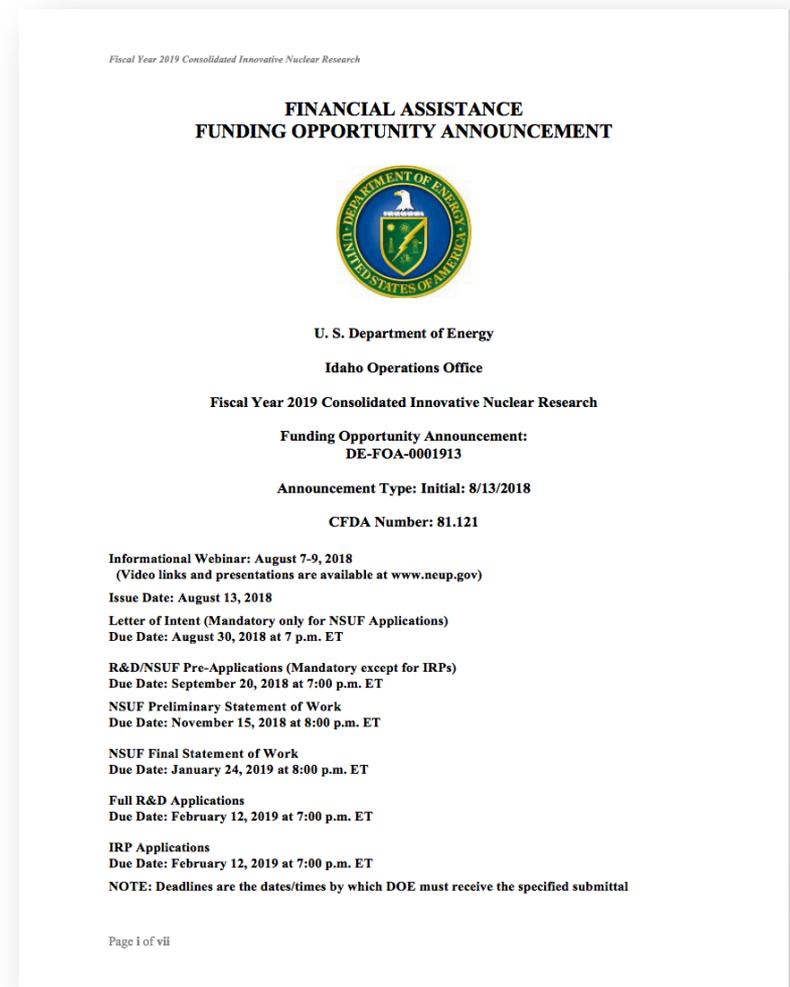


# Cost Sharing

- ❑ For applications led by universities, cost sharing is permitted but not required.
- ❑ For applications led by entities other than universities or FFRDCs, a cost share of at least 20% of total allowable costs is required.
  - The sum of the government share, including FFRDC contractor costs (if applicable), and the recipient share of allowable costs equals the total allowable costs of the project. These must come from non-federal sources unless otherwise allowed by law.
- ❑ Cost sharing requirements do not apply to the value of NSUF access.
- ❑ ***Cost sharing is not an evaluated criteria.***

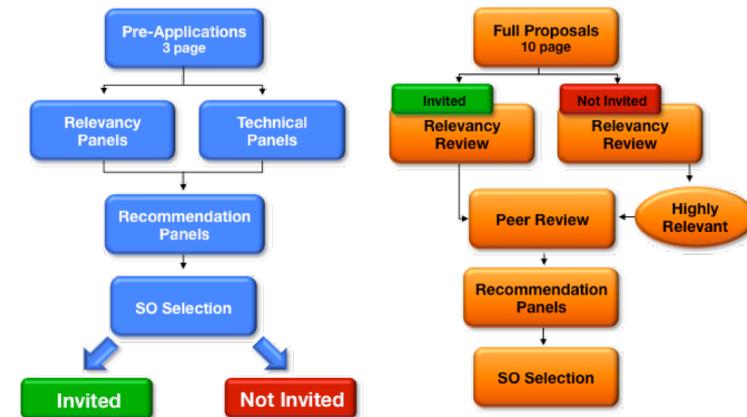
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# Review Processes and Criteria

- Review criteria and processes used for PS, MS, and PD evaluation is consistent with traditional peer review.
  - PS and MS applications are reviewed in a process that includes pre-applications.
    - pre-applications: two relevancy, one peer
      - results in Invited and Not Invited status
    - full applications: typically two relevancy, three peer
  - PD applications are reviewed individually by a common set of reviewers who are then convened into a panel for final scoring.
    - typically two relevancy, three peer



# Tools for Understanding the FOA

## ❑ Eligibility Restriction Workflow

- [https://neup.inl.gov/SiteAssets/FY2020\\_Documents/FY20 CINR FOA Eligibility Flowchart.jpg](https://neup.inl.gov/SiteAssets/FY2020_Documents/FY20_CINR_FOA_Eligibility_Flowchart.jpg)

## ❑ R&D Federal/Technical Points of Contact

- [https://neup.inl.gov/SitePages/FY20\\_RD\\_Technical\\_Program\\_Contacts.aspx](https://neup.inl.gov/SitePages/FY20_RD_Technical_Program_Contacts.aspx)

## ❑ IRP Federal/Technical Points of Contact

- [https://neup.inl.gov/SitePages/FY20\\_IRP\\_Technical\\_Program\\_Contacts.aspx](https://neup.inl.gov/SitePages/FY20_IRP_Technical_Program_Contacts.aspx)

# Contact Information



- ❑ Federal/Technical Points of Contact – Technical Questions
  - List of TPOCs found at [www.NEUP.gov](http://www.NEUP.gov)
  
- ❑ DOE-ID – Procurement Questions
  - Andrew Ford
  - [fordaj@id.doe.gov](mailto:fordaj@id.doe.gov)
  
- ❑ NE Integration Office – General Application Submittal Questions
  - (208) 526-1602 / (208) 526-8178
  - [neup@inl.gov](mailto:neup@inl.gov)

# FY20 Important Dates

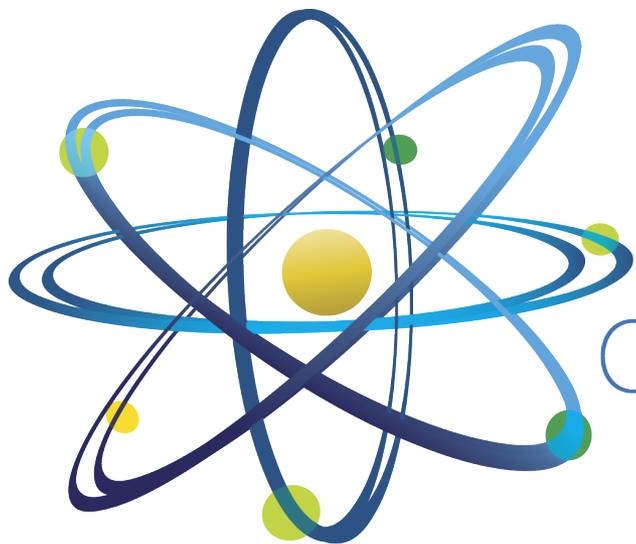
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[www.neup.gov](http://www.neup.gov)



# Questions?



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